Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-11. (Cancelled).

12. (Currently Amended) A porous material ~~wherein~~comprising:

silicon carbide particles as an aggregate~~ are bonded with one another via silicon nitride as a binder in such a state that~~ ; and

a silicon nitride binder bonding the silicon carbide particles so as to define pores ~~are~~ present between the silicon carbide particles~~,~~ to provide an open porosity of 50% to 75%;

wherein a surface of the silicon nitride defining each pore is either free from any columnar silicon nitride ~~(silicon nitride whisker) is formed on the surface of the silicon nitride within each pore,~~ or ~~that, even when~~includes columnar silicon nitride ~~is inevitably formed there~~, ~~the number of the~~provided that an amount of columnar silicon nitride having a thickness of more than 2 μm and an aspect ratio of less than 10 is greater than ~~that~~ an amount of ~~the~~ columnar silicon nitride having a thickness of 2 μm or less or an aspect ratio of 10 or more.

13. (Currently Amended) A porous material ~~wherein~~ comprising:

silicon carbide particles as an aggregate~~ are bonded~~ ; and

a silicon nitride binder directly bonded with the silicon carbide particles and bonding the silicon carbide particles with one another~~ via silicon nitride as a binder in such a state that~~ so as to define pores ~~are present~~ between the silicon carbide particles~~,~~;

wherein the pores have a specific surface area of 1 m^2/g or less.

14. (Cancelled).

15. (Previously Presented) A porous material according to Claim 13, wherein an open porosity is 40 to 75%.

16. (Previously Presented) A porous material according to Claim 12, wherein the pores have an average pore diameter of 5 to 50 μm.

17. (Previously Presented) A porous material according to Claim 13, wherein the pores have an average pore diameter of 5 to 50 μm.

18. (Previously Presented) A porous material according to Claim 12, which has a heat resistance temperature of 1,200°C or more.

19. (Previously Presented) A porous material according to Claim 13, which has a heat resistance temperature of 1,200°C or more.

20. (Previously Presented) A porous material according to Claim 12, which has a gas permeability coefficient of 1 μm^2 or more.

21. (Previously Presented) A porous material according to Claim 13, which has a gas permeability coefficient of 1 μm^2 or more.

22. (Withdrawn) A method for producing a porous material wherein silicon carbide particles as an aggregate are bonded with one another via silicon nitride as a binder in such a state that pores are present between the silicon carbide particles, wherein no columnar silicon nitride (silicon nitride whisker) is formed on the surface of the silicon nitride within each pore, or that, even when columnar silicon nitride is inevitably formed there, the number of the columnar silicon nitride having a thickness

of more than 2 μm and an aspect ratio of less than 10 is greater than that of the columnar silicon nitride having a thickness of 2 μm or less or an aspect ratio of 10 or more,

wherein the method comprises the steps of:

mixing at least silica, silicon nitride and a pore former;

firing the resulting mixture at 1,400 to 1,500˚C in an inert gas atmosphere or reduced-pressure atmosphere where the oxygen partial pressure is 10 Pa or less to prepare a silicon-silicon carbide porous material; and

nitriding and firing the silicon-silicon carbide porous material at 1,200 to 1,800˚C in a nitrogen atmosphere.

23. (Withdrawn) A method for producing a porous material wherein the silicon carbide particles as an aggregate are bonded with one another via silicon nitride as a binder in such a state that pores are present between the silicon carbide particles, wherein the pores have a specific surface area of 1 m^2/g or less,

wherein the method comprises the steps of:

mixing at least silica, silicon nitride and a pore former;

firing the resulting mixture at 1,400 to 1,500˚C in an inert gas atmosphere or reduced-pressure atmosphere where the oxygen partial pressure is 10 Pa or less to prepare a silicon-silicon carbide porous material; and

nitriding and firing the silicon-silicon carbide porous material at 1,200 to 1,800˚C in a nitrogen atmosphere.

24. (Cancelled).

25. (Withdrawn) A method for producing a porous material according to Claim 12, wherein, after preparing the silicon-silicon carbide porous material, the atmosphere used therein is changed to a nitrogen atmosphere without lowering the temperature to room temperature and keeping the temperature at 1,200˚C or more, and nitriding and

firing the silicon-silicon carbide porous material at 1,200 to 1,800°C in the nitrogen atmosphere is conducted.

26. (Withdrawn) A method for producing a porous material according to Claim 22, wherein, after preparing the silicon-silicon carbide porous material, nitriding and firing the silicon-silicon carbide porous material at 1,200 to 1,800°C is conducted in a nitrogen atmosphere containing 0.1% by volume or more of hydrogen.

27. (Withdrawn) A method for producing a porous material according to Claim 23, wherein, after preparing the silicon-silicon carbide porous material, nitriding and firing the silicon-silicon carbide porous material at 1,200 to 1,800°C is conducted in a nitrogen atmosphere containing 0.1% by volume or more of hydrogen.

28. (Withdrawn) A method for producing a porous material according to Claim 22, wherein, after the preparation of the silicon-silicon carbide porous material, the atmosphere is changed to a nitrogen atmosphere containing 0.1% by volume or more of hydrogen (a hydrogen-containing nitrogen atmosphere) without lowering the temperature to room temperature and keeping the temperature at 1,200°C or more, and nitriding and firing the silicon-silicon carbide porous material at 1,200 to 1,800°C in the hydrogen-containing nitrogen atmosphere is conducted.

29. (Withdrawn) A method for producing a porous material according to Claim 23, wherein, after the preparation of the silicon-silicon carbide porous material, the atmosphere is changed to a nitrogen atmosphere containing 0.1% by volume or more of hydrogen (a hydrogen-containing nitrogen atmosphere) without lowering the temperature to room temperature and keeping the temperature at 1,200°C or more, and nitriding and firing the silicon-silicon carbide porous material at 1,200 to 1,800°C in the hydrogen-containing nitrogen atmosphere is conducted.

30. (Withdrawn) A honeycomb structure constitutes by a porous material wherein silicon carbide particles as an aggregate are bonded with one another via silicon nitride as a binder in such a state that pores are present between the silicon carbide particles, wherein

no columnar silicon nitride (silicon nitride whisker) is formed on the surface of the silicon nitride within each pore, or that,

even when columnar silicon nitride is inevitably formed there, the number of the columnar silicon nitride having a thickness of more than 2 μm and an aspect ratio of less than 10 is greater than that of the columnar silicon nitride having a thickness of 2 μm or less or an aspect ratio of 10 or more.

31. (Withdrawn) A honeycomb structure constituted by a porous material wherein silicon carbide particles as an aggregate are bonded with one another via silicon nitride as a binder in such a state that pores are present between the silicon carbide particles, wherein the pores have a specific surface area of 1 m^2/g or less.